AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. **(canceled)**

2. **(currently amended)** A backlight inverter for an LCD panel, comprising:

a switch for switching a direct current (DC) operating voltage in response to a pulse width modulation (PWM) drive signal;

a rectifier for rectifying an output voltage from said switch;

a transformer driver for converting an output voltage from said rectifier into an alternating current (AC) voltage;

a plurality of transformers for boosting the AC voltage outputted from said transformer driver to levels of a lamp operating voltage and a complementary lamp operating voltage, said transformers being connected in parallel to said transformer driver and driven in pairs;

a plurality of lamps each being operated by a corresponding one of said transformers;

an operation stop control for detecting a voltage at a midpoint of secondary windings of each of said transformer pairs, determining from the detected voltage whether a fault exists in said transformers and outputting an operation stop signal upon determining that the fault exists in said transformers;

an output driver for supplying said PWM drive signal to said switch in normal operation and a switch-off signal to said switch upon receiving said operation stop signal from said operation stop control;

~~The backlight inverter as set forth in claim 1, further comprising:~~

a reference signal generator for generating a sawtooth-wave reference signal based on said

output voltage from said rectifier and a DC input voltage;

an over-voltage detector for detecting said output voltage from said rectifier;

a lamp voltage detector for detecting a voltage corresponding to a current flowing through each of said lamps ~~of said lamp means~~;

a voltage selector for selecting a higher one of the voltage detected by said over-voltage detector and the voltage detected by said lamp voltage detector;

~~comparison means including~~ a first comparator for comparing the voltage selected by said voltage selector with an internal reference voltage for over-voltage detection ~~determination~~ and, based on a result of said comparing, outputting ~~providing~~ a signal indicative of whether an over-voltage condition has been detected; ~~generated, in accordance with the compared result, and~~

a second comparator for comparing ~~an output~~ the signal outputted from said first comparator with said sawtooth-wave reference signal from said reference signal generator and providing a duty cycle adjustment signal in response to the signal outputted from said first comparator ~~based on the generation of the over-voltage in accordance with the compared result~~; and

a logical operation unit for ORing an inverted version of said duty cycle adjustment signal from said second comparator ~~comparison means~~ and said operation stop signal from said operation stop control [[means]] and providing the ORed result to said output driver.

3. (original) The backlight inverter as set forth in claim 2, further comprising a dimming controller for generating a PWM signal in response to a dimming signal based on a brightness control and supplying the generated PWM signal to an output terminal of said first comparator.

4. **(currently amended)** The backlight inverter as set forth in claim [[1]] 2, wherein said operation stop control [[means]] includes:

a transformer fault detector for detecting said voltage at said midpoint of said secondary windings of each of said transformer pairs ~~in said transformer means~~ and providing a transformer fault signal if the detected voltage is above a reference voltage for transformer fault detection

~~determination of the fault in said transformer means~~; and

a latch set in response to said transformer fault signal from said transformer fault detector for holding the output of said operation stop signal to said logical operation unit until [[it]] said latch is reset.

5. **(canceled)**

6. **(currently amended)** A backlight inverter for an LCD panel, comprising:

a switch for switching a direct current (DC) operating voltage in response to a pulse width modulation (PWM) drive signal;

a rectifier for rectifying an output voltage from said switch;

a transformer driver for converting an output voltage from said rectifier into an alternating current (AC) voltage;

a plurality of transformers for boosting the AC voltage outputted from said transformer driver to levels of a lamp operating voltage and a complementary lamp operating voltage, said transformers being connected in parallel to said transformer driver and driven in pairs;

a plurality of lamps each being operated by a corresponding one of said transformers;

an operation stop control for detecting a voltage corresponding to a current flowing through each of said lamps, determining from the detected voltage whether an open-lamp condition has occurred, detecting a voltage at a midpoint of secondary windings of each of said transformer pairs, determining from the detected voltage at said midpoint whether a fault exists in said transformers, and outputting an operation stop signal upon determining that the open-lamp condition has occurred or that the fault exists in said transformers; and

an output driver for supplying said PWM drive signal to said switch in normal operation and a switch-off signal to said switch upon receiving said operation stop signal from said operation stop control;

~~The backlight inverter as set forth in claim 5, further comprising:~~

a reference signal generator for generating a sawtooth-wave reference signal based on said

output voltage from said rectifier and a DC input voltage;

an over-voltage detector for detecting said output voltage from said rectifier;

a lamp voltage detector for detecting [[a]] the voltage corresponding to the current flowing through each of said lamps ~~of said lamp means~~;

a voltage selector for selecting a higher one of the voltage detected by said over-voltage detector and the voltage detected by said lamp voltage detector;

~~comparison means including~~ a first comparator for comparing the voltage selected by said voltage selector with an internal reference voltage for over-voltage detection ~~determination~~ and, based on a result of said comparing, outputting ~~providing~~ a signal indicative of whether an over-voltage condition has been detected; ~~generated, in accordance with the compared result, and~~

a second comparator for comparing ~~an output~~ the signal outputted from said first comparator with said sawtooth-wave reference signal from said reference signal generator and providing a duty cycle adjustment signal in response to the signal outputted from said first comparator ~~based on the generation of the over-voltage in accordance with the compared result~~; and

a logical operation unit for ORing an inverted version of said duty cycle adjustment signal from said second comparator ~~comparison means~~ and said operation stop signal from said operation stop control [[means]] and providing the ORed result to said output driver.

7. (original) The backlight inverter as set forth in claim 6, further comprising a dimming controller for generating a PWM signal in response to a dimming signal based on a brightness control and supplying the generated PWM signal to an output terminal of said first comparator.

8. **(currently amended)** The backlight inverter as set forth in claim [[5]] 6, wherein said operation stop control [[means]] includes:

an open-lamp condition detector for detecting said voltage corresponding to said current flowing through each of said lamps ~~of said lamp means~~, determining that the open-lamp condition has occurred if the detected voltage is below a reference voltage for ~~determination of the~~ open-lamp

condition detection, and then providing an open-lamp condition signal;

a transformer fault detector for detecting said voltage at said midpoint of said secondary windings of each of said transformer pairs ~~in said transformer means~~ and providing a transformer fault signal if the detected voltage is above a reference voltage for transformer fault detection ~~determination of the fault in said transformer means~~;

a malfunction detector for generating a malfunction signal in response to said open-lamp condition signal from said open-lamp condition detector or said transformer fault signal from said transformer fault detector; and

a latch set in response to said malfunction signal from said malfunction detector for holding the output of said operation stop signal to said logical operation unit until [[it]] said latch is reset.

9. **(new)** A backlight inverter for an LCD panel, comprising:

a switch for switching a direct current (DC) operating voltage in response to a pulse width modulation (PWM) drive signal;

a rectifier coupled to said switch for rectifying an output voltage from said switch;

a transformer driver coupled to said rectifier for converting an output voltage from said rectifier into an alternating current (AC) voltage;

at least a pair of transformers connected in parallel to said transformer driver for boosting the AC voltage outputted from said transformer driver to levels suitable for operation of lamps each being operated by a corresponding one of said transformers;

an operation stop control for detecting at least one of a fault in said transformers and an open-lamp condition, and for outputting an operation stop signal upon determining that either a fault exists in said transformers of an open-lamp condition has occurred;

an output driver coupled to said switch and said operation stop control for supplying said PWM drive signal to said switch in normal operation and a switch-off signal to said switch upon receiving said operation stop signal;

a reference signal generator coupled to said rectifier for generating a reference signal based on said output voltage from said rectifier;

an overvoltage detector for detecting said output voltage from said rectifier;

a lamp voltage detector for detecting a voltage corresponding to a current flowing through each of said lamps;

a voltage selector coupled to said overvoltage detector and said lamp voltage detector for selecting a higher one of the voltage detected by said overvoltage detector and the voltage detected by said lamp voltage detector;

a first comparator coupled to said voltage selector for comparing the voltage selected by said voltage selector with an overvoltage detection reference voltage and outputting a comparison signal indicative of whether an overvoltage condition has been detected;

a second comparator coupled to said first comparator and said reference signal generator for comparing the comparison signal with said reference signal and outputting a duty cycle adjustment signal; and

a logic coupled to said second comparator, said output driver and said operation stop control for outputting either said duty cycle adjustment signal or said operation stop signal to said output driver depending on a level of said operation stop signal.

10. **(new)** The backlight inverter of claim 9, wherein said reference signal is a sawtooth-wave signal

11. **(new)** The backlight inverter of claim 10, wherein said logic is an OR logic.

12. **(new)** The backlight inverter of claim 11, wherein an output of said second comparator is coupled to an inverted input of said OR logic.

13. **(new)** The backlight inverter of claim 12, further comprising a dimming controller for generating a PWM signal in response to a dimming signal and supplying the generated PWM signal to an output terminal of said first comparator.

14. **(new)** The backlight inverter of claim 12, wherein said operation stop control includes:

a transformer fault detector coupled to a midpoint of secondary windings of said transformer pair for detecting a voltage at said midpoint and providing a transformer fault signal if the detected voltage at said midpoint is above a transformer fault detection reference voltage; and

a latch coupled to said logic and said transformer fault detector and being set in response to said transformer fault signal for holding the output of said operation stop signal to said logic until said latch is reset.

15. **(new)** The backlight inverter of claim 12, wherein said operation stop control includes:

an open-lamp condition detector for detecting said voltage corresponding to said current flowing through each of said lamps and providing an open-lamp condition signal if the detected voltage is below an open-lamp condition detection reference voltage; and

a latch coupled to said logic and said open-lamp condition detector and being set in response to said open-lamp condition signal for holding the output of said operation stop signal to said logic until said latch is reset.

16. **(new)** The backlight inverter of claim 12, wherein said operation stop control includes:

an open-lamp condition detector for detecting said voltage corresponding to said current flowing through each of said lamps and providing an open-lamp condition signal if the detected voltage is below an open-lamp condition detection reference voltage;

a transformer fault detector coupled to a midpoint of secondary windings of said transformer pair for detecting a voltage at said midpoint and providing a transformer fault signal if the detected voltage at said midpoint is above a transformer fault detection reference voltage;

a malfunction detector coupled to said transformer fault detector and said open-lamp condition detector for generating a malfunction signal in response to either said open-lamp

condition signal or said transformer fault signal; and

a latch coupled to said logic and said malfunction detector and being set in response to said malfunction signal for holding the output of said operation stop signal to said logic until said latch is reset.

17. **(new)** The backlight inverter of claim 9, wherein said operation stop control includes:

a transformer fault detector coupled to a midpoint of secondary windings of said transformer pair for detecting a voltage at said midpoint and providing a transformer fault signal if the detected voltage at said midpoint is above a transformer fault detection reference voltage; and

a latch coupled to said logic and said transformer fault detector and being set in response to said transformer fault signal for holding the output of said operation stop signal to said logic until said latch is reset.

18. **(new)** The backlight inverter of claim 9, wherein said operation stop control includes:

an open-lamp condition detector for detecting said voltage corresponding to said current flowing through each of said lamps and providing an open-lamp condition signal if the detected voltage is below an open-lamp condition detection reference voltage; and

a latch coupled to said logic and said open-lamp condition detector and being set in response to said open-lamp condition signal for holding the output of said operation stop signal to said logic until said latch is reset.

19. **(new)** The backlight inverter of claim 9, wherein said operation stop control includes:

an open-lamp condition detector for detecting said voltage corresponding to said current flowing through each of said lamps and providing an open-lamp condition signal if the detected voltage is below an open-lamp condition detection reference voltage;

a transformer fault detector coupled to a midpoint of secondary windings of said transformer pair for detecting a voltage at said midpoint and providing a transformer fault signal if the detected voltage at said midpoint is above a transformer fault detection reference voltage;

a malfunction detector coupled to said transformer fault detector and said open-lamp condition detector for generating a malfunction signal in response to either said open-lamp condition signal or said transformer fault signal; and

a latch coupled to said logic and said malfunction detector and being set in response to said malfunction signal for holding the output of said operation stop signal to said logic until said latch is reset.